29. (new) Plant according to Claim 24, characterized in that it comprises devices for cleaning the precipitates and small particles, during treatment.

30. (new) Plant according to Claim 24, characterized in that the sorting device comprises a device for transporting the deconsolidated materials with magnetic separation of the metallic materials, possibly combined with an eddy-current system for the non-ferrous materials.

REMARKS

This is the entry into the U.S. National Stage of International Application No. PCT/BE98/00180 filed 20 November 1998. The foregoing amendments place the specification into U.S. format and present Claims 16 - 30 for examination.

Applicant respectfully submits that, in view of the foregoing amendments and remarks, and upon grant of the accompanying petition to revive the international application upon which this application is based, the application is in condition for examination. Favorable consideration is respectfully requested.

Respectfully submitted,

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SERIAL NO. New U.S. National Stage Application

DOCKET NO.: 4006-007-30

MARKED-UP COPY OF PARAGRAPHS, AS AMENDED

Replacement for the first paragraph, at page 1, lines 3-9:

--The present invention relates to a process and a plant for the treatment of vulcanized rubber of all kinds, such as tyres, conveyor belts, boots, shoes and other objects containing assembled rubber and polymer materials for the purpose of recycling the [component [sic]] components by the relevant industries.--

Replacement for the fourth paragraph, at page 2, lines 25-32:

--GB 2,026,144 (1979) [of] discloses writing [[sic]] a plant for the treatment of rubber waste and of synthetic materials coming from worn tyres. Thermal decomposition of the product, which is coarsely reduced, is carried out in a fluidized bed of sand at 800°C in the presence of oxygen. The gases produced by the decomposition are used and, at the end of the process, the reinforcing metals are recovered by means of magnets.--

Replacement for the first full paragraph at page 4, lines 5-9:

--B) The reduced waste is introduced into a reactor and treated for 30 minutes at 350°C with an OH^- ion generator, preferably a strong alkaline base such as molten NaOH. 3. [[sic]] Separation of the basic liquid and the residues coming from the treated rubber.--;

Replacement for the first full paragraph at page 5, lines 8-27:

--As shown in Figure 1, crystallized NaOH in its original package is melted in the oven 1, at a temperature of 300 to 400°C, before being introduced into the master tank 5, which is provided with a heater and in which the NaOH is maintained at a temperature of 380° before being transferred to the reactor 13 into which the waste coming from the cropper 14 is also

introduced. After 30 minutes of immersion and with stirring at the start of obtaining a temperature of 350°C_2 [[sic]. The] the liquid is conducted by the line 19, [furnishes of [sic]] provided with a pump, to the buffer tank 20 and then sent to the master tank 5. The buffer tank is heated to a temperature of 380°C in order to prevent heat shocks occurring in the tank 5. Moreover, the buffer tank is designed to gather the precipitates and is organized for the separation and extraction of the small particles. The decomposition products from the reactor 13 are transferred to the neutralization tank 23 and, at the end of the treatment, the residues are transported to the magnetic sorting device 32 where the metals are separated from the polymers resulting from the treatment.--.

Replacement for second and third full paragraphs at page 6, lines 5-31:

--The master tank 5 is equipped with conventional monitoring and control instruments 8 to 11, known to those skilled in the art, which monitor the conditions in the tank and actuate the electronic control actuators when transfers are made and when other actions are taken. The regulatory safety valve 7 prevents unexpected and accidental overpressures and the heating element 6 (which may be placed [[sic]] on the outside, between the insulation, by heating coils conveying a warm liquid [lime]) keeps the temperature constant inside the tank.

The liquid is sent via the line 12, fitted with a pump, into the reactor 13 and the waste, cut up in the cropper 14, advantageously a guillotine, is sent by the chain conveyor 15 into the reactor 13, the solid materials must be immersed, the amount of caustic liquid is attained by the operation and control of a probe which also actuates the closure of the valve 17 and the start of the stirring provided by the mixer 16. The temperature of the reactor is maintained by the heating system 18. After approximately 30 minutes treatment at 350°C, the materials are deconsolidated, the caustic liquid is extracted by the line 19, fitted with a pump, through a filter 21, to the buffer tank 20. The filter 21 retains the particles greater than 1 mm. It is unclogged suddenly by closing the valve of the line 19 and sending compressed air 44 into that part of the

line [18] 19 [[sic]] which is connected to the tank 13.--.

Replacement for the third paragraph at page 8, line 15 - page 9, line 4:

--As this is a heat treatment, it is preferable to work continuously as long as possible. For this purpose, and in order to avoid shut downs due to the build-up of impurities and small particles, cleaning devices are provided for removing them, without having to stop the production. After a number of treatments and in anticipation of cleaning the buffer tank 20, the NaOH liquid in the master tank 5 will be taken to the minimum level in order to receive the entire solution stored in the buffer tank 20, up to the level of the tap on the line 21. Next, water will be slowly added via the line 37 to the rest of NaOH liquid, bottom of the buffer tank 20 for a direct dilution to the point of non-crystallization (concentration +/- 40%). After this dilution, the valve 38 is opened on a vibrating screen 39 having a porosity of 10 microns. The solid particles are removed to a container 40 and will be able to be transferred thereafter to a washing tank external to the system with a filter press for the impurities precipitated by the neutralization and for recovering the materials to be recycled in a [containers [sic]] container of the 36 type. The 40% NaOH solution is recovered via the outlet 41. It will be put into drums and sold for another use or else introduced into the tank 24 in order to obtain a neutralizing agent and thus increase the profitability of the process.--.

Replacement for the third full paragraph at page 9, lines 20-27:

--During temporary shut-down or shut-down of short [of] duration [[sic]] of the plant, the heating of the master tank 5 and possibly buffer tank must not be cut off. For a complete shut-down, it will be essential to drain, while hot, the buffer tank 20 to the master tank 5 and then via the line 43, connected to a battery of drums in which the solution will crystallize. To reuse the NaOH, the drums will be placed in the oven 1.--.